ÆNERGIA

December 19, 2007

AGIA License Office
State of Alaska, Department of Revenue
550 West 7th Avenue, Suite 1820
Anchorage, AK 99501

Attention: Mr. Chris Rutz, crutz@aidea.org, Fax: (907) 771-3930, Phone: (907) 771-3015

Subject: AGIA Application - - Additional Clarifying Information
ÆNERGIA, LLC

Commissioners of Natural Resources and Revenue,

We are pleased to present the following "Clarifying Information" in accordance with the December 12, 2007, letter of request by ADNR Deputy Commissioner Rutherford.

ÆNERGIA welcomes the opportunity to provide these clarifications because, as indicated in our original application, we based it on an aggressively *creative* ("outside the box") Project Plan and understand that this will generate questions, especially from the perspective of a traditional pipeline viewpoint. Where more detail has been requested, we have endeavored to provide it in a satisfactory form, with sufficient completeness.

At the same time, our intent within the clarification process is to maintain the ÆNERGIA paradigms of public-private partnership, project mission and revenue.

- Working harder on "*how"* technical project issues are processed rather than estimating economic outcomes based on transitory initial design concepts. A corollary is respecting the uniquely Alaskan circumstances where design led by "earth sciences" is more prudent than by "steel".

- Seeking whatever collaboration and inclusiveness among stakeholders, ancillary project stakeholders, consultants and construction engineers that can provide the best choices to *complete the mission* rather than being concerned about corporate profitability, competitive advantage, the exclusiveness of assignments or who receives the prestige.

- Creating a public-private partnership where the equity issues are settled first, as simply and clearly as possible, so a *public service system* for natural gas processing, delivery, marketing and transmission can be built by a group of stakeholders all working in unison. We visualize great power being released to the selected licensee to energize this process.

Our commitment is to support the spirit of the AGIA process by reducing operational details to the most basic and clear elements possible. Again, as stated in the application, we believe that a plan that is "simple", "transparent" and "equitable" (and has a process in place for generating creative solutions to emergent challenges) will provide the greatest opportunity for project success. Our duty is fulfilled by recognizing the positional authority of the State and the other stakeholders.

Respectfully submitted,

ÆNERGIA, LLC

_____ _____

William J. Burkhard, Principal Partner Andrew L. Taber, Principal Partner

3911 West Capitol Avenue, West Sacramento, CA 95691 (907) 770-5075

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PREFACE

The request for clarifications suggests a brief overview of the ÆNERGIA approach to the application. In clarifying the approach and reasoning, the individual responses are clarified to a much greater degree. Further clarification to each question is added where needed.

Our application represents a fundamental shift in the following paradigms:

- from the perception that pipeline projects are "steel" driven to the perception that a project must be "earth science" driven project in the unique Alaskan environment;
- from a "producer/pipeliner" driven project to a "State induced" project;
- from a single entity builder to a collaborative team;
- from a "for-maximum-profit" project to a "public service" project;
- from a pipeline to a transportation, distribution, marketing system;
- from the inherent "power" of a large corporate to the "power" of being the licensee.

In our application process, our goal is to not just talk models and paradigm shifts, but to demonstrate how they will work.

Prior to the application deadline we did not know who would commit to building a project so we were purposely vague in reference to partnering. We referred to using a Canadian partner or agent directly in the application and made a commitment to "piggy-back … on existing relationships" in section 2.2.3.13. We deemed it infeasible to work internationally without an international partner and we were waiting to see if there would be a Canadian commitment of facilities and the desire to build more. We also referred to possible Kenai and Valdez lines as "ancillary projects" in sections 2.1.3, 2.1.5, and 2.2.3.14. The definition of the term ancillary means either supporting (subordinate) or assisting. We intended both meaning. We saw the need but were unwilling to commit to building those segments ourselves on behalf of the stakeholders. Since gas flows and telescoping of pipe diameters depended on the commitments of others, our technical commitments needed to be flexible enough to include or not include the needs of potential partners and at the same time not irreversibly commit to their projects.

We designed an extremely flexible and responsive project directorate in the complimentary system of the "Project Nexus" and the CMM team. The management design accommodates the diversity of the potential stakeholder jurisdictions as well as the complexity of the jurisdictional interrelationships, and these both national and international.

The vision of the ÆNERGIA application is to provide the maximum benefit to Alaskans through joint efforts of "ancillary project" stakeholders by collaborating in a "Project Nexus". Through the AGIA process, the critical four groups we see necessary to make a complete gas system in Alaska have stepped forward: Alaska Natural Gas Development Authority (ANGDA), the Alaska Gasline Port Authority (AGPA), and TransCanada. Each of these entities brings components and vision needed for a complete system. ÆNERGIA's vision is to build the Alaskan portion of the mainline and to oversee the coordination and building of the whole system under the direction of the Project Nexus and through CMM protocols.

- The project needs an ÆNERGIA-type partner as the visionary for guidance and coordination and as the constructor of the mainline and plants from North Slope to the Canadian border.

- The project needs a TransCanada-type partner to handle the Canadian segment. TransCanada is the apparent best partner for the Canadian segment since they have control over much of the Canadian facilities, are experienced in navigating the Canadian regulatory system, have the experience to complete the Canadian segment, and have some control over Alaskan right-of-way and, perhaps most importantly, have expressed high interest.

- The project needs ANGDA as the leader for the gasline to the Kenai Peninsula. The Kenai is the heart of Alaska's population and manufacturing and needs an entity dedicated to serving their needs.

- The project needs AGPA as the leader to supply gas to locals and for LNG exported through Valdez to:

    - Add the west coast market through existing LNG facilities in Coos Bay and Costa Azul. (This is in addition to the central and eastern markets primarily served by the Canadian segment of the pipeline);
    - Provide competition for the tariffs of the Canadian segment as a protection against contention for the prime portion of the revenue stream;
    - Provide alternate routes to keep Alaska gas flowing in case of a failure along one leg or the other;
    - Potentially provide an earlier shipping date for the Alaskan gas and a source of revenue during a critical time.

Furthermore, the United States is in a period where services to the Oil and Gas industry are fully employed and a project of this magnitude may likely require more than the resources currently available. Availability of human and materials resources will be a design factor considered in the FEED.

With the above in mind, the reasons for our approach should be more clear.

REQUEST 1

a. Until the partnering and FEED are complete ÆNERGIA'S commitment to the design details outlined in Section 2.1 et.al. is considered sufficient. In the ÆNERGIA application, we mention the approximate dimensions of the pipeline being in the 4 foot to 4.5 foot range and the steel being either X-80 or X-100 strengths. The reason for the ranges of parameters is twofold. First, the size and the telescoping of the pipeline are subject to the gas volume agreements between project partners and will be determined as the outcome of the in-state needs assessment and the various investigations in the FEED. Secondly, the use of X-100 steel would be desirable due to possible lower costs and ease of handling but its availability is highly questionable. Committing the project to exact pipeline dimensions and parameters before the FEED was deemed unwise.

b.

i. ÆNERGIA has committed to bringing 4+ BCF from the North Slope to the lower 48 States, in part or in whole, by a pipeline through Canada. ÆNERGIA does not have authorities within a foreign country to obligate its facilities or its people as is would in Alaska if the AGIA license were granted. ÆNERGIA can only commit to negotiate for the passage of North Slope gas through Canada with people who are willing to transport the gas and have stated that they "will not stand in the way".

Before the application, ÆNERGIA did not have the perceived strength to open negotiations with a Canadian partner. Once the AGIA license is issued, we are confident that we will be able to negotiate terms.

ÆNERGIA envisions the Canadian partner(s) to work with the governments, the people groups, and the people of Canada to complete a pipeline from the Alaskan/Canadian border to the pre-build facilities under the original AHPP. The pre-build facilities would need expansion and would take the gas to the AECO hub. From there, the Canadian partner would negotiate with ÆNERGIA as to where it would enter the United States along with gas specifications. Once at the United States border, ÆNERGIA would build or have built the facilities needed to connect the pipeline to one or more suitable U.S. hubs. Details will be an outcome of the FEED and negotiations with Canadian partner(s).

ii. In accordance with (i) above, ÆNERGIA envisions the Canadian partner to build a new pipeline from the Alaskan/Canadian border to the pre-build facilities constructed under the original AHPP. The pre-build facilities would need expansion and would take the gas to the AECO hub. From there, the Canadian partner would negotiate with ÆNERGIA as to where it would enter the United States along with gas specifications and build a pipeline to that location.

Until the partnering and FEED are complete ÆNERGIA'S commitment to the design details outlined in Section 2.1 et.al. is considered sufficient.

iii. Sections 2.1 through 2.1.6 are considered sufficient to describe the project until the partnering and FEED is complete.

iv. Please see section 1(a) of Request 1 above.

v. The application assumes the plants would burn the natural gas mix transported in the pipeline. The size, number and location of the compressor stations and electricity generation facilities would be determined during the FEED and the negotiations of the project partners.

vi. In section 2.1, the application calls for receipt points upstream from the Gas Treatment Plant on the North Slope. The exact location of the receipt points will be near the well heads of wells selected during the Open Season.

vii. In accordance with the opening discussion, all the markets of the lower 48 states would be available to receive the gas. The pipeline would likely deliver gas to hubs in the central and eastern United States and the LNG exports would deliver gas to the west coast markets.

Gas would be available to communities in Alaska adjacent to the pipeline at the locations of the delivery points.

Through AGPA and ANGDA, if approved and built, natural gas would be available to the railroad corridor, (including the Kenai Peninsula), Fairbanks, Valdez, and adjacent communities.

Exact volumes of gas delivered and exact locations are dependent mainly on the negotiations of the project partners but also on the FEED.

viii. The locations, capacity, and capabilities of NGL plants are determined in the FEED. The guiding principles are as follows:

- NGLs are highly valuable and can be marketed directly or used to modify the wobbe index and the Btu content.
- NGLs are subcritical at the proposed operating temperature and pressure and can condense out and pool in the pipeline reducing its capacity and efficiency.
- Using the Project to move NGL in sufficient quantities could render the contents unusable for consumer applications. In such case, at delivery points, NGL plants may be necessary to meet consumer specifications thereby increasing the cost. Furthermore, the fractions removed from the stream may have to be re-injected into the pipeline at upstream locations thereby causing increased downstream costs by the need to further mitigate for the increased condensate.
- The thermal regime of Alaska with its permafrost is varied along the alignment. Some areas will most likely be operated below freezing and others above. Each reach will have its own sensitivity and mitigation issues with NGL condensate. The restrictions in one reach may be so severe that it renders shipping NGL infeasible.
- Canada has previously stated that they want the ethanes from the pipeline as part of the tariff.

In conclusion, the cost-effectiveness of shipping NGL fractions is concentration sensitive. The balance will be struck in negotiations and during the FEED. It is possible that shipping NGL through the Project may not be as cost-effective as other modes of transportation which we will investigate during FEED.

REQUEST 2

As indicated in the application, all tariffs are the cumulative sum of capitalization and O&M costs of each upstream reach and feature. The Project will be operated at as close to a neutral cash flow as possible without profit or loss.

a.

i. The Alaskan Portion of the Project: Sections 2.2.3.4 through Sections 2.2.3.7 are considered sufficient to address tariffs. Capacity access is granted during Open Season in accordance with FERC regulations.

ii. The Canadian Portion of the Project: ÆNERGIA does not have authorities within a foreign country to obligate its facilities or its people. Tariffs would be determined during negotiations.

iii. The gas treatment plant: All tariffs are the sum of capitalization and O&M costs.

iv. NGL removal and processing: All tariffs and fees are the sum of capitalization and O&M costs.

b. We perceive FERC to be an agency that is willing to work with a "public service" pipeline project to keep the integrity of the "business model". We believe FERC as a public regulatory agency will work with us to accomplish the goal of a cost neutral Project and tariffs being a sum total of all upstream costs (O&M, capitalization, etc.) of each reach and feature.

FERC may insist that we fit into an existing structure or they may be willing to modify an existing structure to accommodate our business model. Either way we are willing to work with FERC but our intention was to communicate that we are pushing for the new paradigms and new business model.

c. Our emphasis in this application has been "One Simple Transparent Equity Ratio" (OSTER) where all relationships, ownerships, etc. boil down to the OSTER. The key concept is the concept of equity. All inequities are monetized to zero so all relationships are simplified and transparently governed by the OSTER. The "capacity rights are not transferable" comment is our attempt to develop language that thwarts circumventing the OSTER and obfuscating the governance and benefits of the Project – the very thing the OSTER was developed to prevent. The language needs further refinement and it will obviously need to end up in compliance with FERC regulation.

REQUEST 3

ÆNERGIA shall conclude a binding Open Season by January 1, 2011.

REQUEST 4

As identified in our application "preface", one of the strengths ÆNERGIA brings to the AGIA process is its experience with putting together teams, collecting human resources. Both Mr. Burkhard and Mr. Taber have extensive networks of human assets to draw from. Mr. Burkhard has in particular re-assembled many of the senior earth science professionals from the previous gas pipeline attempt. As a result, ÆNERGIA will provide the earth science and engineering leadership as well as the environmental components of this project.

After the licensing acceptance, ÆNERGIA will continue the search for teaming partners and begin formalizing existing relationships to assure having the required core competencies and resources to complete the project.

REQUEST 5

Request 5 requests information assuming a different financial paradigm than the one in which our application was written. Consequently, a little more explanation is required.

We have considered the period prior to a license being issued as a *speculative investment period* where equity participants rightfully can expect to receive a return on investment for the value brought to a project. The risk is either "all or nothing" and because of this, the value is generally calculated commensurate to risk and through a percentage of the project revenue. Any pre-license agreement is therefore considered speculative and will result in higher tariffs.

We have considered the period after a license is issued as *the work period* where participants are compensated in direct proportion to the value of the work they have contributed to the project. During this period, bids for hourly or lump-sum payments are validated by reasonable equity.

The key thought is that until a license is issued, the equity partners are in a speculative mode. That type of commitment will come at too great a cost to the project's bottom line. The power to get competitive costs comes from *being* the license holder. The attractiveness of the project opportunities *in reality* will bring the vendors to us.

ÆNERGIA "shopped around" the pipeline world during the speculation period for those who would risk bringing value to the project in return for knowledge and working relationships, which, in turn, would produce a competitive edge in bringing further value to the project *after* the license is issued. Prior to the application deadline, we found no one who wanted to participate on these terms.

a. ÆNERGIA did not provide appendices or other documentation evidencing our financial resources and capabilities to perform the Development and Execution phases of the proposed project. By the very approach to the application outlined above, ÆNERGIA was limited in pursuit or identification of partners in the application.

b. Multiple financial institutions and energy and petro-chemical engineering firms have expressed interest in becoming partners *since* the AGIA application has been made . . . from the publicly available information . . . just because we are an applicant.

The application names the resource owners as the first choice to fund the Project. Out of respect for the AGIA review process and since one of the resource owners filed a non-conforming application, ÆNERGIA has not contacted any of the resource owners to see if they are interested in financing the Project.

Multiple Engineering and Construction firms have also expressed interest in assisting in the Project.

c. In accordance with 5(a) and 5(b) and in accordance with AS 43.90.130(19) ÆNERGIA *has* named all the entities with whom we have currently effective written commitments; there are none.

REQUEST 6

In the preface, we indicate that the earth science and engineering as well as the environmental core competencies are contained in ÆNERGIA. In the paradigm presented by our application, ÆNERGIA will form the relationships with the "steel" core competencies at fair market value. They will become available at fair market value only after we are an applicant or after the license is issued. This is most clearly expressed in the "Preface" in our application.

Per Section 2.9.2 and Section 2.9.3, the resources have not yet been lined up and since they will be lined up under the ratification of the Project Nexus, the competency of the team to is fundamentally assured by the stakeholders of Nexus.

REQUEST 7

Please see REQUEST 6 response since it applies to both sections.

REQUEST 8

The OSTER stands for One Simple Transparent Equity Ratio. In order for OSTER to remain equitable, revenue flow and ownership must have: **O**ne path, **S**imple percentage Ratio calculation, and **T**ransparency. If you lose one of these items by having multiple revenue paths, complex calculations, or hidden "deals", you lose them all. The OSTER was designed to combine all income from natural gas and related facilities into one simple transparent revenue stream.

The OSTER declares the State's share of the income as equitable, gives the Producers fiscal certainty, and builds trust because it is understandable by all.

All services are provided by Alaska Natural Gas Line, LLP and paid for through the cooperative sales of gas by North Slope Gas Cooperative, with no additional obligations placed on anyone.

The State of Alaska's share in the OSTER is set at 25% and is not obligated to negotiate any terms that would affect this percentage; however, in this spirit *all State obligations to all its constituents should be met from revenue within that 25%*. It is the responsibility of the State to manage its stake and disburse the funds as it chooses.

REQUEST 9

The ÆNERGIA application was accompanied by separate files containing a steady-state or static model of the project in both PDF and in EXCEL 2003 formats.

Since so much of the earth science parameters, partnerships, in-state needs, etc. were not knowable until the completion of partnering, competitive bidding for materials, financing etc., and the outcome of the FEED, these parameters are inputs into the algorithms of the spreadsheet. The OSTER and the "at-cost" aspects of this project greatly simplify the financial portion of the model. In the following discussion, the model is illustrative only and show estimations of the costs, locations, etc.

Referring to the EXCEL file: "Tariff Structure.xls"; the unknowable inputs are the "Assumptions" in the first 15 lines on the page labeled "Tariff Breakdown".

In column A are the approximate mileposts of possible locations of features.

Column B is the name or description of the reach or feature. Note here, that in this illustration, there are 6 delivery points to show the flexibility of the model.

Column C is the price or estimation of the price of the reach or feature based on the estimation work performed in the feasibility study of 2001.

Column D is the price as escalated by the "Escalation Factor" in the Assumptions.

Column E and F is the price of O&M based on the O&M cost factors in the Assumptions.

Column G is the "Return on Capital Invested" if needed to attract investors.

Column H is the repayments on the reach or feature.

Column I is the BBtu's shipped through the reach or feature.

Column J is the losses on the reach or feature.

Column K is the taxes if that should come into play (should be included in the OSTER).

Column L is the accumulation of the costs per Btu.

Column M is the gas usage or delivery. It should be noted here that natural gas used to power the Project is taken out of the system and considered the same as "delivered". The reason that this is equitable is that the OSTER is ubiquitous in the Project in that all costs and revenue are distributed identically at every point regardless of the accounting system. Counting that gas as delivered simplifies the system.

Column N is the tariff/Btu.

Column M is the total tariff.

On the next sheet titled "1st 20 years", the total tariff calculated on the "Tariff Breakdown" sheet is combined with the repayments and the yield (based on the OSTER) is calculated for each market price. The 1st 20 years assumes a level repayment schedule.

Tariffs are the sum total of the costs for upstream reach and features. Wellhead gas price is the free market price minus the sum of the tariffs between the free market point of sale and the wellhead. Non free market delivery point gas price is the wellhead gas price plus the upstream tariffs.

REQUEST 10

As required by AS 43.90.130(7) and RFA Section 2.1.1, ÆNERGIA committed in its application "to propose and support the recovery of Mainline capacity costs…". In Section 2.1.1 of the application, ÆNERGIA stated:

ÆNERGIA commits to the design intent of gas transport facilities to include some pre-build of the expansion capacity. The amount of pre-build will be determined as a balance between the:

- *Capitalization of the construction of the future expansions;*
- *Limitations on raising the tariffs;*
- *Location of and size of downstream markets (Alaska vs. lower 48)*
- *Net present value of the expansion;*
- *Timing of the expansion; and*
- *Estimated remaining reserves needed to maintain pipeline capacity for duration of the life of the Project.*
- *Compliance with applicable State and Federal laws and regulations*

The exact amount of the pre-built expansion capacity will be determined during the FEED and ratified by the Project Nexus.

Since tariffs are simply a sum of all upstream costs and do not have discretionary elements, the process for meeting the AGIA requirements is simply to balance the amount of pre-build with the above concerns to achieve a Net Present Value of zero. If a range of values of pre-build/present-build options are available, then the final determination (within the range) will be based on the outcome of the open season process.

REQUEST 11

ÆNERGIA proposes to request reimbursement at 50% of total qualified expenses incurred before the first binding season and 90% thereafter. The answer in Section 2.11 was meant as an example of how the reimbursement *might* flow, with 100% of the 50% share received as reimbursement by our equity partner. At this point ÆNERGIA does not actually know how the equity partner is going to respond to this reimbursement possibility. For example, if the equity partner is a participating producer, they may very well choose to not take any reimbursement. If the equity partner is someone from Wall Street, they may be interested in qualifying for the full $500,000,000 offered by the State.

REQUEST 12

The ÆNERGIA application was accompanied by separate files (Tariff Structure-Final.xls and Tariff Structure-Final.pdf) containing a static model of the project. Please see our response to Request 9 for further details of the model.

These files were provided on a CD and on a memory stick.